

| Preselection                | $n_{\text{leptons}} = 2, m_{\ell\ell} \in [76, 106] \text{ GeV}, p_{\text{T}}(\ell_1) > 35 \text{ GeV}, p_{\text{T}}(\ell_2) > 20 \text{ GeV},$<br>$p_{\text{T}}(j_{1,2}) > 30 \text{ GeV}, m_{\text{jj}} > 500 \text{ GeV}, \Delta\eta_{\text{jj}} > 2.5$ |                  |                           |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|---------------------------|
| Regions                     | Variables                                                                                                                                                                                                                                                  | Lepton Selection | Other Requirements        |
| Signal Region (SR)          | $65 \text{ GeV} < m_{\text{V}} < 105 \text{ GeV}$                                                                                                                                                                                                          | Same Flavor      | Split in b-tag and b-veto |
| DY Control Region (DY CR)   | $m_{\text{V}} < 65 \text{ GeV}, m_{\text{V}} > 105 \text{ GeV}$                                                                                                                                                                                            | Same Flavor      | Split in b-tag and b-veto |
| Top Control Region (Top CR) | $65 \text{ GeV} < m_{\text{V}} < 105 \text{ GeV}$                                                                                                                                                                                                          | Opposite Flavor  | -                         |